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TOOL AND METHOD FOR THE INTERNAL HIGH PRESSURE
FORMING OF A HOLLOW SECTION

BACKGROUND AND SUMMARY OF THE INVENTION

[0001] The invention relates to a tool for forming a hollow section by the internal high pressure forming process and to an associated method.

[0002] German Patent Document DE 197 33 477 A1 discloses a tool and a method for forming a hollow section of the type mentioned at the beginning. The forming tool has at least one embossing punch which is displaceable transversely to the longitudinal extent of the hollow section and which makes an embossment on the outside of the hollow section after the forming operation. In addition, at least one perforating punch is arranged in the embossing punch coaxially thereto, this perforating punch perforating the hollow section after the embossing operation.

[0003] US Patent No. 6,470,546 B1 discloses a further tool and a further method for forming a hollow section, in which the forming tool has a wall section at which a side facing the hollow section is designed as a shaping die wall and which is displaceable transversely to the longitudinal extent of the hollow section. This wall section contains an embossing punch, by means of which a hole can be embossed in the hollow section after the forming operation.

[0004] German Patent Document DE 197 24 037 A1 discloses a tool for the internal high pressure forming of a hollow body and for cutting a flange on this hollow body. To this end, the tool has a cutting device which runs parallel to the longitudinal extent of the hollow section and has a cutting edge which is displaceable in the transverse direction of the hollow section. At the same time, a side of the cutting device facing the hollow section forms a shaping die wall,